CLAIMS:

1. A display comprising:

a back light;

a display module having an array of pixels that may be individually controlled to selectively block or pass light from the back light to create a desired image; and

a controller for adjusting the luminosity of the pixels of the display module to control the amount of light passing through the pixels to control the brightness of the image, wherein the controller is operable to adjust the luminosity of the pixels after the brightness of the back light has been adjusted to its approximate lowest level.

2. The display as set forth in claim 1, wherein the display module utilizes active matrix technology, wherein each pixel is activated by a separate transistor.

3. The display as set forth in claim 1, wherein each pixel may be separately activated by different voltage levels.

4. The display as set forth in claim 1, further including a color filter to render light passing through each of the pixels either red, green, or blue, wherein the controller is operable to adjust voltage delivered to each of the pixels to scale the red, green, and blue color light emitted through the color filter.

5. The display as set forth in claim 4, wherein the color filter includes individual integrated pixel filter areas.

6. The display as set forth in claim 5, wherein the individual integrated pixel filter areas block all wavelengths of light except those within a desired range of the pixel.

7. The display as set forth in claim 5, wherein an area in between the individual integrated pixel filter areas is printed black to increase contrast between the individual integrated pixel filter areas.

8. The display as set forth in claim 1, wherein a portion of the display is a fixed color.

9. The display as set forth in claim 8, wherein the fixed color is black for land area, blue for water areas, and green for air space boundaries.

10. The display as set forth in claim 1, wherein the controller is operable to adjust the luminosity of the pixels such that relative gray scale is maintained on the display.

11. The display as set forth in claim 10, wherein the controller reduces voltage levels to all active pixels to maintain the relative gray scale.

12. The display as set forth in claim 1, wherein the controller is operable to adjust the luminosity of the pixels such that color variations are maintained on the display.

13. The display as set forth in claim 12, wherein the controller reduces voltage levels to all active pixels to maintain the color variations.

14. A display comprising:

a back light;

a display module having an array of pixels that may be individually controlled to selectively block or pass light from the back light to create a desired image; and

a controller for adjusting the luminosity of the pixels of the display module to control the amount of light passing through the pixels to control the brightness of the image, wherein the controller is operable to adjust the luminosity of the pixels after the brightness of the back light has been adjusted to its approximate lowest level such that relative gray scale and color variations are maintained on the display.

15. The display as set forth in claim 14, wherein the controller reduces voltage levels to all active pixels to maintain the relative gray scale and the color variations.

16. The display as set forth in claim 14, further including a color filter to render light passing through each of the pixels either red, green, or blue, wherein the controller is operable to adjust voltage delivered to each of the pixels to scale the red, green, and blue color light emitted through the color filter.

17. The display as set forth in claim 16, wherein the color filter includes individual integrated pixel filter areas which block all wavelengths of light except those within a desired range of the pixel.

18. The display as set forth in claim 17, wherein an area in between the individual integrated pixel filter areas is printed black to increase contrast between the individual integrated pixel filter areas.

19. The display as set forth in claim 14, wherein a portion of the display is a fixed color.

-11-

20. The display as set forth in claim 19, wherein the fixed color is black for land area, blue for water areas, and green for air space boundaries.

5

10

15

20

25

30

21. A method of controlling the brightness of a display, the display including a back light and a display module having an array of pixels that may be individually controlled to selectively block or pass light from the back light to create a desired image, the method comprising the steps of:

5

adjusting the brightness of the back light to vary the amount of light passing through the pixels of the display module to control the brightness of the image; and

when the back light has been dimmed to a pre-determined brightness level, adjusting the
10   luminosity of the pixels to further reduce the amount of light passing through the pixels to reduce the brightness of the image.

22. The method set forth in claim 21, wherein the luminosity of the pixels is modified such that relative gray scale is maintained on the display module.

15

23. The method set forth in claim 21, wherein the luminosity of the pixels is modified such that color variations are maintained on the display module.

20

25

30

24. A computer program stored on computer-readable medium for controlling the brightness of a display, the display including a back light and a display module having an array of pixels that may be individually controlled to selectively block or pass light from the back light to create a desired image, the computer program including code segments for:

5

adjusting the brightness of the back light to vary the amount of light passing through the pixels of the display module to control the brightness of the image; and

when the back light has been dimmed to its approximate lowest brightness level,
10   modifying luminosity of the pixels to further reduce the amount of light passing through the pixels to reduce the brightness of the image.

25. The computer program set forth in claim 24, wherein the luminosity of the pixels is modified such that relative gray scale is maintained on the display module.

15

26. The computer program set forth in claim 24, wherein the luminosity of the pixels is modified such that color variations are maintained on the display module.

20

25

30